



## **MOTOROLA** SILICON RECTIFIER SELECTION GUIDE



AN EASY-TO-USE PROFILE  
OF THE LARGEST  
QUALITY RECTIFIER LINE  
AVAILABLE ANYWHERE!

**Excellence through experience:**  
Since 1959, Motorola has fabricated nearly 200 million individual silicon rectifiers. The technical knowledge and practical know-how gained from this unmatched production record has truly made Motorola a leader in the manufacture of quality rectifiers of all types.

The devices listed in this guide represent a versatile, broad-line rectifier capability flexible enough to fit more than 1000 different device types. Additional types not shown include:

- glass and Surmetic\* diodes to 3000-volts PIV
- miscellaneous low and medium-current stud types
- hundreds of standard and custom rectifier assemblies including:
  - single and polyphase bridges from 1 to 2400 amperes
  - high-voltage assemblies to 60 Kv
  - molded diode assemblies
  - control assemblies
  - circuit assemblies










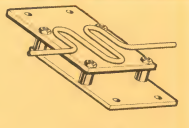
POWER UP WITH MOTOROLA RECTIFIERS . . .



. . . FROM 1.0 TO 1000 AMPERES

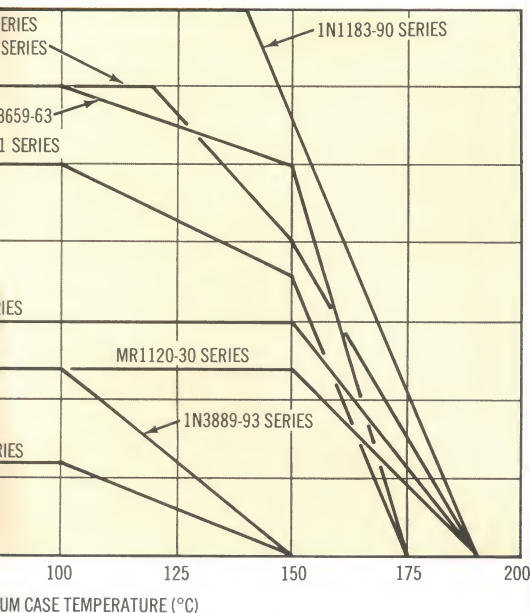
# RECTIFIER SELECTION GUIDE

*of quality rectifiers available*

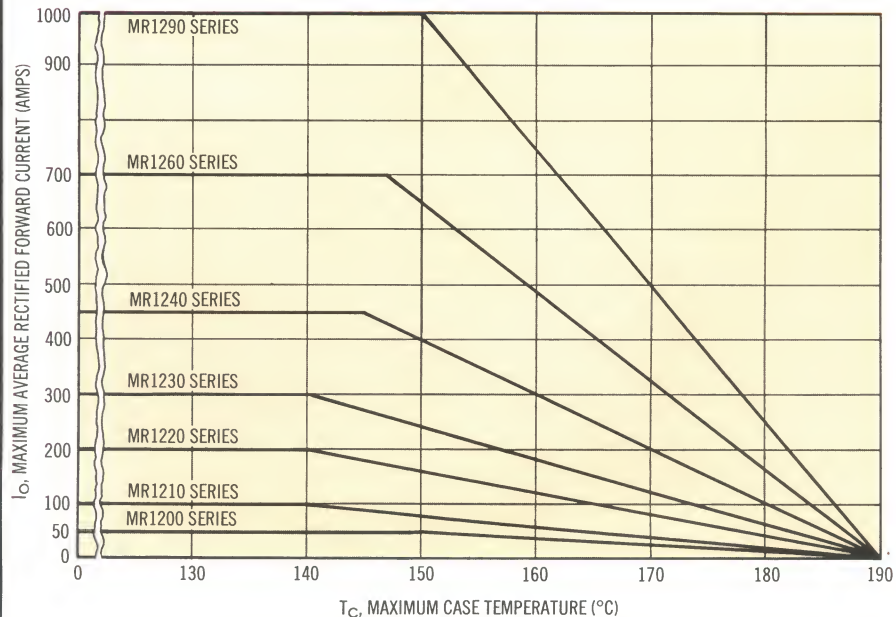
	20A	25A	30A	35A	50A	80A	160A	240A	400A	650A	1000A
						 80A 160A 240A 400A	 80A 160A 240A 400A	 160A 240A 400A 650A	 160A 240A 400A	 1000A (WATER COOLED)	
	CASE H	CASE J	CASE J	CASE H	CASE K	CASE L	CASE M	CASE N	CASE P	CASE R	
8	1N248B	1N3491 (MR322)	1N3659	1N1183	MR1200	MR1210	MR1220	MR1230	MR1240	MR1260	MR1290
9	1N249B	1N3492 (MR323)	1N3660	1N1184	MR1201	MR1211	MR1221	MR1231	MR1241	MR1261	MR1291
	1N1193			1N1185	MR1202	MR1212	MR1222	MR1232	MR1242	MR1262	MR1292
0	1N250B	1N3493 (MR324)	1N3661	1N1186	MR1203	MR1213	MR1223	MR1233	MR1243	MR1263	MR1293
					MR1204	MR1214	MR1224	MR1234	MR1244	MR1264	MR1294
1	1N1195	1N3494 (MR325)	1N3662	1N1187	MR1205	MR1215	MR1225	MR1235	MR1245	MR1265	MR1295
					MR1206	MR1216	MR1226	MR1236	MR1246	MR1266	MR1296
2	1N1196	1N3495 (MR326)	1N3663	1N1188	MR1207	MR1217	MR1227	MR1237	MR1247	MR1267	MR1297
3	1N1197	MR327		1N1189							
4	1N1198	MR328		1N1190							
		MR330									
		MR331									

POLARITIES AVAILABLE IN ALL 3A TO 1000A TYPES

## LOW CURRENT



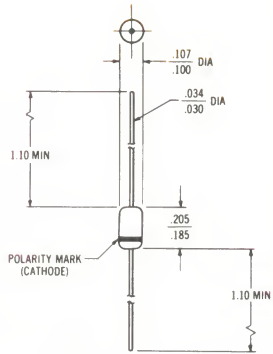
## HIGH CURRENT



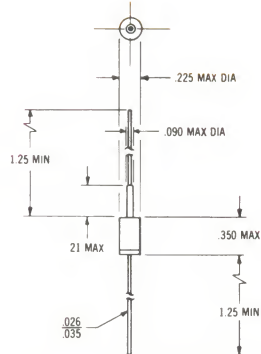


## RECTIFIER CASE DIMENSIONS

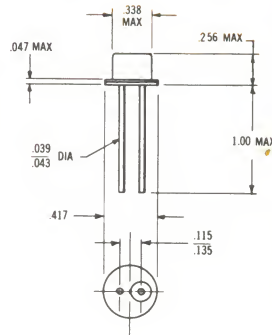
## CASE A



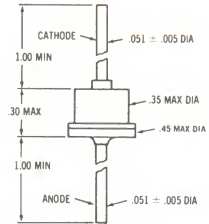
## CASE B



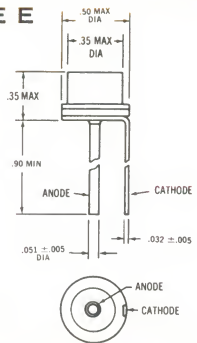
### CASE C



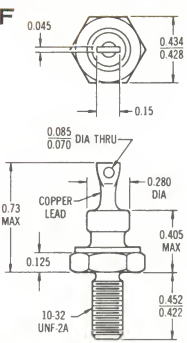
## CASE D



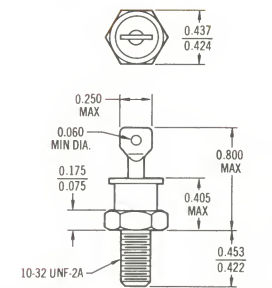
## CASE E



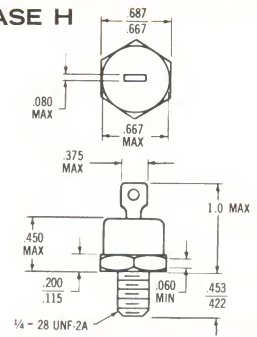
## CASE F



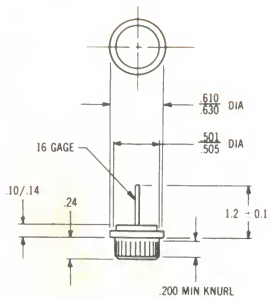
## CASE G



## CASE H



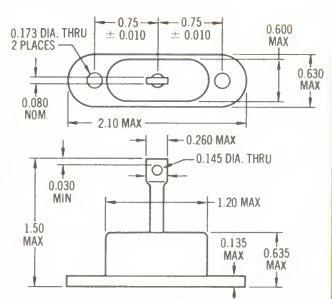
## CASE J



To Budget Current	Dimensions — inches							
	A HEX	B <sub>1</sub> MAX	B <sub>2</sub> MAX	C MAX DIA	D <sub>1</sub> MAX	D <sub>2</sub> MAX	E <sub>1</sub> DIA	F <sub>1</sub> MAX
80	1.250	0.135	0.113	1.20	0.525	0.590	0.275	0.350
160	1.75	0.260	0.155	1.72	0.760	0.64	0.375	0.475
240	2.00	0.260	0.200	1.94	1.10	1.00	1.00	0.562
400	2.250	0.320	0.260	2.20	1.10	1.155	0.562	
	E <sub>2</sub> DIA	F <sub>2</sub> MAX	F <sub>3</sub> MAX	G	H THREAD	J MAX	K MAX	
80	0.281	2.25	6.25	0.125	10-32	0.500	0.570	
160	0.343	3.0	8.10	0.375	2-16 UNF	1.00	1.10	
240	0.531	3.50	8.10	0.375	2-16 UNF	1.00	1.10	
400	0.562	3.72	8.10	0.375	2-16 UNF	1.00	1.10	

I/O Device Current	Dimensions — inches							
	A	B DIA	C MAX	D MAX DIA	E MAX	F MAX	G MAX	H MAX
160	2.25	0.203	0.880	1.720	0.260	0.155	0.760	1.000
240	3.00	0.281	1.255	2.100	0.320	0.200	1.100	1.400
400	3.00	0.281	1.255	2.200	0.320	0.260	1.100	1.400
650	3.25	0.281	1.380	2.885	0.500	—	1.30	—
	F MAX	G MAX	G MAX	H DIA	H DIA	J MAX	K MAX	
160	0.64	1.9	7.10	0.375	0.343	0.260	1.00	
240	1.00	2.50	6.90	0.562	0.531	0.260	1.00	
400	1.155	2.70	6.90	0.562	0.562	0.260	1.00	
650	—	2.50	—	0.562	—	0.260	1.00	

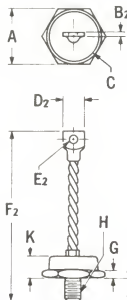
### CASE K



## CASE L



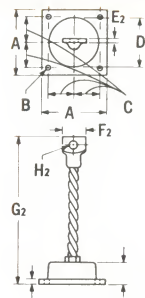
## CASE M



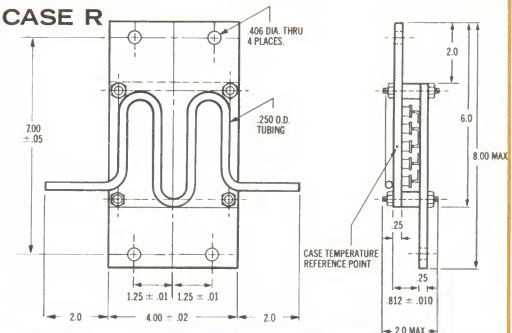
## CASE N



## CASE P



## CASE R



## New Motorola Semiconductor Data Manual . . .



Covers 2600 different rectifiers, diodes, transistors . . . in over 18 device categories . . . plus cross-reference and selection information . . . Handy size — 908 pages of easy-to-use comprehensive data helps you quickly select the exact device type to meet your application and electrical requirements. Only \$3.50 from your Motorola Distributor or the factory.

**MOTOROLA Semiconductor Products Inc.**

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